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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

APR 13 1929

REPORT FOR THE WEEK ENDING APRIL 13, 1929.

PENDLETON:

The farmers in this section are busy plowing. Many of them are almost through. The spring work on many farms has been speeded up by the purchase of track laying type of tractors. Practically all the wheat in this section is sown in the fall after summerfallow. All the winter wheat came through in good condition, and is making a good growth now. The spring wheat, oats and barley seeded March 20 have not fully emerged on account of the cold weather.

The months of December and January were very mild with no extremes in temperatures. During February a temperature of 21 below was recorded, the lowest on record in Pendleton for that month. Neither low temperatures, unusual precipitation or extreme high temperatures were experienced during March. The highest temperature 74 was recorded on March 27. The lowest temperature was 29 above on March 14. A total of .62 of an inch of rain fell during the month. The greatest precipitation during any twenty-four hour period was .18 of an inch on March 20. The first two weeks in April have been windy and cold. The lowest temperature was 21 above on April 9. The precipitation has been very slight, mostly in the form of snow or hail. The station is located about five miles from the foothills of the Blue Mountains. These foothills are still covered by snow.

The station work for the past three weeks has consisted mainly of measuring and marking off plots which will be used for the rotations next fall. To date there are 440 plots marked off. The plots are 33' x 132' with a five-foot alley, twenty-foot roads and twenty plots in a block. The plots are outlined by cutting a swath about one foot wide on all sides with a wheel hoe. The field being plotted was seeded last fall to Hybrid 128, a soft white club wheat.

The only building on the station at present is an implement shed. We hope to have at least one other building by harvest time. The plans for the main residence were received today from the local architect. The well will be completed in a few days. It is now 200 feet deep.

HAVRE:

Although not very long in duration, the past winter was generally considered rather severe. The temperatures were not low until after the first of the year, the severely cold weather beginning about the middle of January and lasting until about the 1st of March. Snow covered the ground most of the time during December, January, and February.

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HAVRE, continued:

Spring arrived rather gradually during March and there were a few days during the latter part of that month when disking and light field work were possible. The following table summarizes the weather for the winter months.

	Mean	Maximum	Minimum	Ab. Maximum	Ab. Minimum	Precipitation
November	33	48	18	68	4	.03
December	22	33	10	50	-31	1.14
January	1	11	- 9	41	-41	.57
February	7	17	- 3	35	-35	.32
March	35	45	25	72	8	.90

April, to date, has been rather unfavorable for field work. We were in the field for two or three days for the week ending the 6th. Most of the disking and cultivating is now completed but no plowing has been done yet.

Winter wheat has made very little start, and it is, therefore, probable that the stands will be thin. Quite a large amount of sod is being broken in this locality this spring, and if conditions between now and the middle of May are favorable there will be a large acreage of flax planted in northern Montana this spring.

Ranges generally have been good and livestock have gone through the winter in very good shape. There was practically no scarcity of hay in this section. Early lambing has been interfered with by wet weather.

JUDITH BASIN:

The fall of 1928 was one of the driest ever experienced in Central Montana. October was the only month above normal in precipitation from August to December, inclusive. Just a trace of moisture was recorded in November. December was comparatively mild and open over most of this section. Moderate conditions continued generally until about January 18th when a very unusual protracted cold spell of intensely cold weather set in. This continued with slight variation to the middle of February. A record minimum temperature for this section of 42 below was recorded January 28. The maximum for this period was 24 below. Another cold snap occurred from February 16 to 24, inclusive. Heavy snows, greater in amount than usual, occurred during January and February.

JUDITH BASIN, continued:

Practically all highways were blocked during January, February and most of March.

The snow covering protected winter wheat during the intensely cold weather and it came through the winter in good shape. The dry soil absorbed practically all the moisture from the melting snow, thereby reducing the loss from run-off. The soil is apparently in good condition for spring operations. The cool, backward weather with intermittent snow storms has delayed spring work, no field work having been done in this section to date.

The value of a well arranged shelterbelt was emphasized during the heavy drifting snow storms. Snow was piled from ten to twelve feet high in the north and west belts which protect the station buildings. It is still piled from four to six feet high and is melting gradually into the soil. Beneficial results are expected from this additional moisture to tree plantings, orchard and garden.

Director F. B. Linfield visited the station during the week.

Maximum temperature 47; minimum temperature 7; precipitation .02 in.

HUNTLEY:

Field work on the Dry-Land fields has been under way for some time, but owing to frequent showers and snow flurries progress has been slow. Seed bed preparation for small grains should be completed in the rotation field today if our present favorable weather holds out a few hours longer. Spring plowing in the miscellaneous experiments field has been finished, but there remains two or three days work of disking and harrowing before the land will be in condition to seed.

Indications are that there is plenty of moisture in the surface foot or two to give seedling crops a good start. Notwithstanding the fact that the past winter was notable for long periods of severely cold weather the ground did not freeze deeply, due, perhaps, to the heavy covering of snow during most of the season. The first heavy thaw drew out the frost permitting subsequent precipitation to enter the soil without much run-off.

Fall sown grains that came up before the ground froze seem to be in good condition, although the weather so far has been too cold to encourage much growth. Grain that did not come up last fall has been germinating this spring, and at present these plots look very patchy as to stand and the condition of the seedlings is poor.

HUNTLEY, continued:

Weeds started early this spring and the first field work of the season was the harrowing of all grass, alfalfa and pasture plots with the spring tooth harrow.

Temperature, maximum 55; minimum 17; precipitation .15 inch.

SHERIDAN:

No work has been possible here yet in the field, except for clearing the land of Russian thistles. This work has been in progress all the week when the weather has permitted. Temperature still remains low and light snow has been frequent until the last few days. The ground has dried considerably in the last few days, but still remains sticky just below the surface.

The past winter has been one of the most severe recorded here. Highways were blocked to motor vehicles from February 9 until the last of March, and have been impassable because of mud since, except for a day or so at a time.

Livestock wintered fairly well through this section, but feeding has been necessary from the middle of November until the present time, and hay has become scarce throughout the section.

Maximum temperature 51; minimum 13; precipitation .20 inch.-snow.

DICKINSON:

The winter of 1928-29 was the coldest since 1916, and about as cold as any of record. From January 10 to February 20 the cold was about as severe as ever recorded here for a six-weeks period. The mean temperature in January was 4.5 degrees below zero and was 14.8 degrees below normal for that month. February was 9.0 degrees below normal and March was 3.3 degrees above normal. The minimum temperature of the winter was 40 degrees below zero on February 19.

The fore part of the winter was mild with light precipitation. Due to the dry fall, the soil was very dry when it froze. Precipitation during January, February and March amounted to 4.33 inches, which is 2.74 inches above average. The snow melted slowly so that most of the water went into the soil, so that the soil is now wet deeper than during recent springs.

DICKINSON, continued:

Most of the snow was gone from the fields by March 20. A few light falls later kept the soil too wet for working until the first week in April. Thistles were raked from stubble plots on April 4 and plowing was started on the 8th. Frozen soil has delayed work each morning, but tillage has been completed for the wheat, oats, and barley on the rotations and seeding will begin on the 15th if weather permits.

A few fields of wheat on fallow have been seeded in the locality. With the favorable water supply the outlook is for a full acreage of all crops. More farm machinery has been sold than during any spring of the past ten years. The tendency is to buy larger machines than during recent years.

Maximum temperature 51; minimum 15; precipitation trace.

MANDAN:

Agronomy

The past winter, after the first of the year, was one of the most severe on record. December, 1928 was one of the mildest Decembers on record. From January 1 to the end of February, it was continued cold. The average minimum temperature for the 59 days was -12.2° F., which is 5° lower than any other time for the same period since the station was started. In 1916 the month of January was colder than this year, and the same was true for February in 1922. There was a good deal of snow, but not excessive. There was very little wind during the winter, so the continued cold was not as disagreeable as it might have been. During the winter of 1916 there was much snow and wind.

The precipitation for January (.80 in.) February (.31 in.) and March (1.47 in.), in all 2.58 inches, is over half an inch above normal.

Field work started on April 3, when weeds were cleaned up and burned. Plowing started on the 5th, but was delayed by rain and snow. Field work for the small grains is now about complete, and wheat seeding will, no doubt, be done next week near the average date of seeding.

MANDAN, continued:

Crested wheat grass started growth April 1, and brome grass a week later.

The early part of the week was cold and hard freezing took place at night. It has warmed up the past day or two.

Wheat seeding is general over the country, and a little was seeded the last of March.

Maximum temperature 53; minimum 19; precipitation .21 inch.

Cooperative Grazing Experiment

Steers for the Grazing work were obtained in Fargo, North Dakota last fall by the North Dakota Agricultural College. They were at Fargo until the middle of January, when they were shipped to Mandan. They have been wintered on the river bottoms.

Arboriculture

Shipping of trees for Demonstration Shelterbelt planting commenced on Monday, April 8. Trees for replacing losses in 1928 shelterbelt plantings have been shipped to 76 farmers in Montana, 69 in North Dakota, 46 in South Dakota, and 25 in Wyoming. Trees for planting new 1929 shelterbelts have been shipped to 86 farmers in North Dakota, 37 in South Dakota and 23 in Wyoming. Shipping will be continued next week.

One hundred and twenty pounds each of Green ash and Boxelder, 100 pounds of Russian olive and 50 pounds of Wild plum seed, have been planted in the shelterbelt nursery.

Horticulture

Fruit trees in the experimental blocks have been pruned. Spring planting is now in progress.

So far as can be judged at present, winter injury of shrubs and trees, does not appear to be severe. Japanese plum hybrids especially showed much more damage a year ago than at the present time.

Rabbits did less damage during the past winter than is usually the case.

BELLE FOURCHE:

The fore part of the winter was unusually dry and mild, but extremely cold weather prevailed throughout most of January and February. The longest period of continuous sub-freezing weather on record occurred during the winter, and the ground was frozen to a depth of over five feet. March was comparatively warm, and the precipitation for the month was the greatest ever recorded for March, exceeding the 20-year normal of .65 inch by 1.35 inches. Approximately 18 inches of snow, totaling 1.51 inches precipitation, were received in a four-day storm during the second week of March. High winds caused the snow to drift badly and snow drifts six feet or more in height were not uncommon.

The weather during April has been unsettled with light snow storms or showers occurring every few days, and but very little work in the field has been possible. Plowing of rotation plots for small spring grains was completed April 6, but subsequent snow storms have prevented the performance of additional field work.

Fall grains and hay crops survived the winter with very little injury. Winter wheat and winter rye have made a satisfactory growth, and alfalfa and sweet clover have commenced to resume growth.

Maximum temperature 55; minimum 11; precipitation .38 inch.

ARDMORE: For week ending March 23, 1929.

The winter of 1928-1929 was the driest on record at the Ardmore Field Station. There was no rain of consequence after harvest in 1928, and practically no snow fell during the winter. When the soil thawed out in early March there was not enough moisture present in any of the fields to germinate small grain. A light thunderstorm followed by snow occurred on March 11 and 12, but practically all of the snow was blown from open fields and the soil still remained dry. Shelterbelts, for the first time during the winter, caught an appreciable amount of snow. Stubble plots caught more snow than the open fields. A rain and snow of .34 inch on March 21 and 22 wet the soil to a depth sufficient to germinate small grain.

The temperature during the early winter and up to January 15 was above normal. The last half of January and most of February were cold, though no very cold temperatures were recorded. The lowest minimum during the winter was 23 degrees below zero.

ARDMORE, continued: For week ending March 23, 1929.

Some soil blowing occurred during February, but did no damage as winter grains had not emerged.

Field work commenced on March 20. About 35 acres of oats and barley were seeded before the storm on March 21. No field work was done during the latter part of the week.

Winter grains that were stubbled in emerged on March 20. Winter grains on fallow and on corn and sorgo ground have not yet germinated.

The precipitation for March to date is 1.11 inches. The total precipitation for January and February was .38 inch.

Maximum temperature 57; minimum 18; precipitation .38 inch.

ARDMORE: For week ending March 30, 1929.

Field work was resumed on March 26. During the remainder of the week planting of grain in the main fields and the field rotations was completed. The seeding of oats in the variety test was started on March 30 but a sudden snowstorm stopped the work temporarily.

Work on the rotation plots was commenced on March 28. Plowing for small grains was completed on March 29 and nearly all of the land preparation necessary before planting small grains was completed the same day. A little additional work on the spring plowed plots is still necessary.

The soil is exceedingly dry for this time of the year. In the plowed plots moisture extended to a depth of from two to six inches. In the fields where cultivated crops were grown last year, there is barely enough moisture to germinate grain.

Farrowing commenced on March 21 and is progressing satisfactorily. The steers in the wintering experiment completed their fifth period on experiment on March 27. To date, the gains of the two lots are as follows:

ARDMORE, continued: For week ending March 30, 1929.

Lot	Feed	Fifth Period Gain	Total Winter Gain To March 27
1	4 lbs oat straw 8 lbs alfalfa	-6.8	23.3
2	4 lbs oat straw 16 lbs silage	1.8	45.3

Maximum temperature 70; minimum 12; precipitation .06 inch.

ARDMORE: For week ending April 6, 1929.

A snow storm on March 30 halted field work until April 2.

The seeding of small grain variety test plots was completed on the third. In the main rotations the barley plots were seeded the 3rd, wheat and pea plots the 4th and oat plots the 5th.

Ten acres of Sudan grass stubble were plowed during the week. Twenty acres of sod broken last summer for the purpose of starting a cultivated grass pasture for beef cattle were disked.

High wind velocity caused some soil blowing on the 5th and 6th.

Mr. J. R. Dawson, Senior Dairy Husbandman, was a station visitor during the week.

Maximum temperature 76; minimum 8; precipitation .18 inch.
The precipitation for the month of March was 1.31 inches, .69 inch above the sixteen year average.

ARDMORE:

Precipitation in the form of wet snow fell during five days of the week. The heaviest fall came on Tuesday, when eight inches of snow containing .53 inch of moisture fell. Thawing temperatures prevailed during the greater part of each day. A few large snow drifts remained at the end of the week.

Weather conditions allowed work in the field on one day during the week. This work consisted of disking spring plowing for Sudan grass pasture and plowing for sorgo.

Maximum temperature 56; minimum 14; precipitation .68 inch.

CENTRAL GREAT PLAINS FIELD STATION: For week ending April 6, 1929.

A force of five carpenters under direction of Alex. K. Morley were engaged finishing the interior of two staff houses, making rolling doors for barn and implement shed, etc. A painter is engaged on varnishing inside woodwork, priming screens etc. The plumber completed installation of all plumbing work and fixtures in all buildings now under way. Other work consisted in cleaning up; running basement floors; ditching, etc.

Mr. Wilson's family arrived from Mandan, North Dakota, April 5, and are installed in the Superintendent's residence; his household goods arrived the same day.

Senator Francis E. Warren, Brig. Gen. F. C. Bolles, Commanding, Fort D. A. Russell, and Mr. George E. Brimmer, of Cheyenne, inspected the buildings the first of the week.

Mr. Savage, of Cereal Investigations, paid a short visit April 5, enroute from Huntley, Montana, to Hays, Kansas.

Mr. Edmondson, Extension Forester for Wyoming, and Mrs. Andrews, County Home Demonstration Worker for Laramie County, called April 6 to discuss with the Superintendent the possibilities of tree planting in the region.

CENTRAL GREAT PLAINS FIELD STATION:

On April 8 two teams and fresno began work grading the service road in the rear of the foreman's cottage. A tractor and fresno were also engaged in this work. The surplus earth was leveled around the office building. A vegetable patch was broken April 8 in the rear of the cottages.

Carpenters are engaged finishing interiors of two staff houses, which are now nearly completed. Cement floors were finished today, April 13, in the basements of these two buildings.

Mr. George E. Brimmer called April 8.

Mr. Wilson with Mr. A. L. Nelson, of Archer, visited the Carey Ranch April 11, with a view to purchasing horses for the station, but found none available of a suitable type.

CENTRAL GREAT PLAINS FIELD STATION, continued:

Prof. Chilcott left April 12 for Colby, Kansas, and will probably visit Hays and Garden City, Kansas; Dalhart, Texas; Tucumcari, New Mexico and Woodward, Oklahoma before returning to Cheyenne about May 1.

The fore part of the week was cold with freezing temperatures at night. Snow fell on April 9. Two inches were reported at Cheyenne, but none of it remained at the station. Low temperatures of 17 and 19 were reported at Cheyenne April 10 and 11, with strong winds. April 12 and 13 mild; clear, 34 degrees to 60 degrees.

ARCHER:

The dry weather, which began the last half of July, 1928, continues to date. However, the precipitation for March, 0.50 of an inch, is only 0.05 of an inch less than the 16-year average. This protracted spell of dry weather has delayed the growth of winter wheat which did not germinate but very little until after the snow of October 14. There have been only a few days of soil blowing. This occurred during the first week of April. On this date the winter wheat is showing green in the drill rows.

Spring plowing on the Dry-Land plots was started April 4, and is now completed. The tractor, hitched to the disk and drill, has seeded 20 acres of Horn barley in the dairy field.

Maximum temperature 68; minimum 14; precipitation 0.02 inch.

AKRON:

The winter was favorable for the survival of fall seeded wheat, the ground being covered with snow the most of the time. Moisture conditions were also favorable after the consequential rains in October.

Winter wheat in most cases emerged during the winter. April first showed good stands of vigorous wheat on the rate and spacing corn project land, on the rate and date of seeding experiment, on the winter wheat variety experiment and on the two sheep rotation fields.

AKRON, continued:

It is yet too early to determine stands on the main rotation field, the wheat there without exception being thin and lacking in vigor. In fact, winter wheat is dying on the plots of the main rotation field, indicating that there may be some parasitic organism responsible.

Spring work was accomplished in good season. The rotation plots to be seeded to early sowed spring grains were plowed March 25th. The rotation barley and pear plots were seeded March 29th. The rotation oat and spring wheat plots were seeded March 30th. The barley variety experiment was seeded March 25th and the oat variety experiment March 26th.

Soil blowing has been very troublesome throughout this region again this spring, though we have experienced no great difficulty here on the station. Soil was started generally by an unusually hard west and southwest wind April 5 and 6. Since that time it has taken no bery hard wind to set this blow-soil in motion.

Work this past week has consisted largely of weighing the feeding lots on three consecutive dates and on weighing-back the unconsumed feeds, and in otherwise getting ready for the First Annual Livestock Feeders' Day to be held here next Friday, April 19th.

April this far has not produced moisture of consequence, though we have twice experienced light showers.

Maximum temperature 72; minimum 16; precipitation .29 inch.

NORTH PLATTE:

Weather was severe during the last half of the winter. The mean temperature for January-February was 5.8 degrees below normal. Below zero temperatures were recorded on 15 days. The absolute minimum was -17 degrees. There was but little snow. Considerable damage has been done to winter wheat by soil blowing.

March was slightly warmer than normal. Spring work on the D. L. A. plots was begun on March 18. Spring wheat was seeded March 27, and oats and barley on March 30. Spring wheat began to emerge on April 11. Barley and oats are sprouted but not yet through.

Soil samples taken during the past week show moisture to a depth of about two feet on late fall-plowed or uncultivated continuously-cropped land. On early fall plowing the penetration is about one foot more.

NORTH PLATTE, continued:

Summer-tilled plots are well filled with water to a depth of five feet.

The surface soil is now dry and soil blowing difficult to control. The precipitation deficit for January-February-March was 47 per cent of the normal precipitation for that period.

TUCUMCARI:

Precipitation the past six months has been unusually high, so in spite of unusually cold weather during a good share of the winter, vegetation is somewhat more advanced than usual. Heavy rains in October and November, with 2.89 inches since January 1, have resulted in a higher moisture content of the soil than has existed in several years. While February was 10 degrees below the long-time mean, livestock survived the winter in good condition.

The majority of winter wheat in the southern portion of the county is in excellent condition. High winds caused severe injury early in the year, but precipitation of over two inches in late March was followed by quiet and warm weather. Although wind movement is normally high at present, wheat is in condition to withstand considerable adversity.

Soil movement on the station has been slight, due to timely field work. There remains a considerable amount of listing to perform. Additional field work will be delayed until danger of soil movement is slight.

Cherries are in full bloom, plums bloomed heavily a week ago, and most apples are in bud-to-bloom stage. Very few peach buds opened: possibly low temperatures in mid-winter injured them. Foliage on all trees has opened unusually fast the past week, due to warmer weather and abundant moisture.

Of some 300 evergreens and Chinese Elm planted in March, nearly all are showing signs of growth.

Maximum temperature 78; minimum 26; precipitation 0.0
Wind velocity 7.5 miles per hour; evaporation 2.048 inches.

DALHART:

Climatic, field and cropping conditions here in the Texas Panhandle are much more favorable this year than for several years past. There has been an ample amount of snow-fall and rain to keep the soil in excellent condition. Fall precipitation was far above the average and this condition has prevailed during the remainder of the season up to the present.

The small grain outlook at this time is good. Winter wheat came through the winter without winterkilling. There has been just a little killing of the small grains in the more sandy sections of the Panhandle due to soil blowing. The damaged area, however, is small. It became necessary in a good many fields to cultivate in order to prevent the wheat from blowing out. At this writing the wheat is sufficiently far advanced so that no further danger from soil blowing exists.

As a general rule, when there is a large fall or winter precipitation there is less windy weather and consequently less soil blowing. This has been an exceptional year on this feature. During January there was more soil movement than occurs generally during that month. There were high winds which followed closely after snows and caused soil blowing while the ground was too wet to work. This condition occurred twice during the past January, which is the first time at that time of year for several years. The station fields blew some during these two periods but not sufficient to cause damage. The fields were cultivated as soon as possible for protection. It has been necessary to do more cultivating this winter and spring than usual in order to keep soil blowing in check. It has been possible to prevent soil blowing since the two times mentioned. Several fields were plowed early in March to lessen the danger of soil blowing and in preparation for planting of oats and barley. These grains, both on the plots and increase fields, are up to good stands and growing nicely.

Spring is about a month early this year due to soil moisture conditions. Trees and shrubs are leafing out nicely at this time. Some of the fruit trees have bloomed, some are about ready to bloom and others have not commenced yet. The peaches on station trees are killed, having been killed by a freeze of 23 degrees on the 11th. About 66 per cent of the Early Richmond cherries were killed at this time but other varieties survived. The apricots were far enough advanced to avoid this freeze.

DALHART, continued:

The experimental vineyard planting was increased to include 50 varieties this spring. Prospects are very favorable for a good grape crop this year on the old vineyard which consists of some 21 varieties, and a light to fair crop on the 10 varieties which will come into bearing this year for the first time. The remainder of the vineyard is younger. One group should come into bearing next year and the other the year following.

BIG SPRING:

Conditions during the past winter have been very favorable, although rather unusual in many respects. The temperature during the past three months has been practically normal, while the rainfall during this period has totaled 4.06 inches, as compared with a normal of 1.95 inches. Of this amount 2.89 inches were received during March.

Wind velocity thus far has been exceptionally light; in fact, the old timers state that they never have experienced such little wind movement as has prevailed this winter. Although it is not too late, no sand storms have occurred up to date. The absence of freezing temperatures during March has allowed a heavy fruit crop to be started, which should develop a big yield unless a late frost should set in.

Most of the land in this vicinity has been prepared in very good shape. Some cotton and feed has been planted during the past week, but the general planting throughout the county will not be done until about May 1.

With the exception of the A plots, all spring plowed plots were plowed and packed last week. During the past week other station work has consisted of cleaning out the orchard, vineyard and other tree rows around the grounds.

Maximum temperature 85; minimum 39; precipitation 0.

WOODWARD:

About ten well distributed rainy periods since the first of the year have totaled 3.16 inches precipitation. This, with the plentiful amount of rainfall received last fall, has kept the soil in excellent condition, and wheat that survived the soil blowing is making rapid growth. However, a considerable acreage of wheat over the country was blown out and damaged somewhat during the early part of the winter. Temperatures for the winter averaged somewhat steady with less extremes and sudden changes than usual. All kinds of fruit apparently have come through the cold weather with little or no damage from freezing. To date prospects for a full crop of fruit are the best since 1924.

Pruning grapes and building and repairing grape trellises has consumed quite a lot of time during the last two months. Part of the old vineyard was removed and replanted to 6 of the better varieties for more detailed studies. About 200 grape vines were grafted in tests of stocks and also to test varieties of vinifera grapes. Several new varieties of grapes and fruit trees have been planted. Also, many varieties of shade trees and ornamental shrubs have been planted.

Chinese elm trees produced a heavy crop of seed this spring, and picking this seed has been in progress for about a week.

Little field work has been done yet except stalk cutting.

Maximum temperature 79; minimum 33; precipitation 0.0
Wind velocity 10.8 miles per hour; evaporation 1.724 inches.

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APR 30 1929

REPORT FOR THE WEEK ENDING APRIL 20, 1929.

PENDLETON:

The weather continues cold, cloudy and windy. The spring grains have emerged with good uniform stands. The winter wheat is growing nicely in spite of the coninued cold. Many of the farmers have completed their plowing for summerfallow.

Five hundred one-tenth acre plots have been marked off for the rotations. The work the past week has consisted of hoeing weeds around the fences, and going over the small alleys around the plots to kill any wheat plants which were not killed the first time over.

Our well driller is still with us. The well is now 250 feet deep. Indications are that we will soon have a good flow of water.

HAVRE:

The past week has been cool and windy with no precipitation. Work on the preparation of seed beds has progressed in very good shape but practically no seeding has been done as yet. Conditions are very favorable for starting weeds and on many plots, Russian thistles are forming a perfect mat under the surface.

Winter wheat and winter rye are growing very slowly. Native vegetation has made practically no growth although gooseberry and some of the other shrubs have just started to show leaf.

Plowing and seed bed preparation is being pushed very rapidly in this section of the State now. Where wheat has been seeded there are complaints of bad infestation of weeds.

Shrubs secured from Shenandoah, Iowa, were planted around the office building early this week. This is the beginning of a landscape planting for the station.

Maximum temperature 62; minimum 24; with freezing or below practically every night. No precipitation was recorded.

JUDITH BASIN:

Cool, blustery weather has characterized the past week. The temperature dropped below freezing during six of the nights. Only one shower was recorded at the end of the week, but weather conditions are unsettled and indications point toward raising the present low April record of .06 inch.

Field work was started in the earlier sections of the Basin. Plowing for small grains was completed on the rotations. The first planting in date of seeding tests was finished. Weeds have blown into the fence lines and are being gathered and burned. A rain on the last day of the week stopped field operations.

Winter wheat appears to be in good condition although some of the new leaves have been nipped by frost.

Mr. Harold Tower, a Montana State College graduate, arrived at this station to assist with the forage crop work. He has had valuable experience in Experiment Station work and will take the place of Mr. D. A. Savage, who recently transferred to the forage work at Hays, Kansas.

Maximum temperature 64; minimum 22; precipitation .04 inch.

HUNTLEY:

Fair weather every day of the past week has permitted field work to go forward without interruption. The preparation of land for small grains was completed in the roation and miscellaneous fields, and the sowing of these crops in the rotation and variety tests was done. Plowing for corn, beans and similar late crops is well under way.

Fall-sown grains, alfalfa and grasses have improved in condition during the last few days, due, principally, to higher temperatures. Winter wheat and rye have taken on a healthier color and have made a good growth. On stubbled-in plots where a week ago the competition between weeds and winter wheat seemed to favor the weeds, the wheat appears to be more than holding its own.

Maximum temperature 67; minimum 25; precipitation Trace.

SHERIDAN:

Tillage operations in the field were begun the 15th. Although the weather was somewhat cool and cloudy, with considerable wind for this section, there was only a trace of precipitation during the week, and field work was possible every day. Preparation of the rotation field for seeding was completed April 19. A few of the plots were plowed. They were a little wet to work up in the best condition, but in general the ground worked up in good condition for seeding. Wheat, barley, and field peas were seeded in the rotations today.

Plowing of plots outside the rotation field has been in progress since the plowing in the rotations was completed. One of the fields for annual pasture crops also was plowed with the tractor.

The November seeding of winter wheat emerged early in the week. Grass and alfalfa are making a slow growth, while weeds seem to be making a good start.

Maximum temperature 65; minimum 24; precipitation Trace.

DICKINSON:

Due to favorable weather the whole week was spent in field work.

Wheat was seeded on the roations April 15, just two days later than the average date for the 22 years, 1907-1928. Oats and barley were seeded on the 17th and 18th, respectively.

Wheat and oat varieties were seeded on the cereal project on the 19th and 20th.

Over 800 trees were received from the Northern Great Plains Field Station, Mandan, North Dakota, and planted on the 17th and 18th. These are included in a demonstration shelterbelt and fruit planting just west of the older trees. The fruit trees will be planted in 1930, or whenever the desired varieties can be secured.

Several varieties of garden vegetables were planted on the 19th.

DICKINSON, continued:

Director P. F. Trowbridge visited the station on April 20, and R. L. Shotwell, Assistant Entomologist from the Billings, Montana, laboratory of the Bureau of Entomology, on the 15th, and County Agent J. C. Russell, of Beach North Dakota, on the 18th.

Maximum temperature 63; minimum 26; precipitation .09 inch.

MANDAN:

Agronomy

The fore part of the week was cold and disagreeable for field work. The latter part was good.

Field work for small grains was completed on the 15th. Plots were lined up and wheat was seeded on the 18th, and oats on the 19th. The average seeding date for wheat is April 18, and for oats April 21.

The soil was in excellent condition for seeding, but has not warmed up much to date. Peas and sweet clover are being seeded today.

Crested wheat grass has a good start, and would be ready for early grazing at this time.

Maximum temperature 64; minimum 32; precipitation .28 inch.

Arboriculture

Shipping of shelterbelt trees to cooperating farmers has been continued throughout the week. Trees for new shelterbelts were shipped to 84 farmers in Montana, which makes a total of 229 farmers receiving demonstration shelterbelts this spring.

Conifer stock, raised in the shelterbelt nursery, has been shipped to 70 farmers for making conifer additions to their shelterbelt plantings.

Twenty-seven pounds of caragana seed have been planted in the station nursery.

MANDAN, continued:

Horticulture

Soil has been removed from raspberries, grapes, buds and cuttings, which have been covered during the winter. Mulch has been removed from the seed beds.

The nursery was planted on April 16 and 17. Planting of fruit trees in the field and testing blocks is partially completed.

Greenhouse and hot bed routing work has been attended to. Transplanting of tomatoes for the tomato breeding project is under way. Early stuff in the Acre garden and Coulee garden was planted on April 18. Soil conditions at the present time seem excellent for the germination of seeds.

BELLE FOURCHE:

Comparatively cool, windy weather has prevailed throughout the week. A rain of .34 inch precipitation was recorded on April 14, but the soil dried rapidly and farming operations have finally commenced in earnest. All small spring grain plots on the dry land rotation field have been prepared and staked for seeding.

The weather has been too cool for a great deal of growth to take place, but sweet clover, winter rye, and winter wheat have made noticeable advancement.

Maximum temperature 70; minimum 28; precipitation .34 inch.

ARDMORE:

Small grain in the fields and variety tests emerged during the week. The winter wheat and winter rye on all plots now show a good stand. If no further soil blowing occurs the winter grain plots will have as good a stand as in any other year.

Field work in the rotations during the week consisted of plowing and working down the plots to be planted to flax, and in manuring the corn and fallow plots that receive manure.

ARDMORE, continued:

Ten acres to be planted to sorgo were plowed during the week. Five acres of sweet clover in the dairy pasture, and about eight acres of alfalfa in the hog pasture and on the old flax rotations were seeded on April 18 and 19. The dead sweet clover in the bottoms along Duck Creek in the reserve pasture was burned off during the week.

Soil samples taken on April 16 showed that there is no available moisture below the first foot on any plots except those fallowed or green manured last year.

The weather was threatening throughout the week, but the amount of precipitation was small.

Maximum temperature 71; minimum 28; precipitation .10 inch.

CENTRAL GREAT PLAINS FIELD STATION:

Two 4-horse fresno teams and one 2-horse plow team were engaged in excavating basement for storage cellar up to noon of the 19th when inclement weather made it necessary for them to quit. This excavation is more than two-thirds completed. A tractor was excavating for greenhouse April 17 and 18. The tractor was also used to break a strip of land from the rear of clerk's cottage to the rear of Staffhouse #2 for sherlterbelt work.

Mr. Wilson, in company with Mr. A. L. Nelson, of Archer, succeeded in locating two suitable teams of horses on the 17th, in the neighborhood of Chugwater and Torrington, Wyoming. Bids were forwarded to Washington on the 17th, and it is hoped the purchase can be made early next week as the teams are now needed at the station.

Shipments of spruce and pine transplants from the Forest Service nurseries at Halsey, Nebraska, and Monument, Colorado, were received April 18, and will be lined out next week.

CENTRAL GREAT PLAINS FIELD STATION, continued:

The weather was clear and mild up to the 19th, with temperatures ranging from 36 to 64 degrees. Misting, very foggy with fine rain April 19th, with wet snow fall during the night of about an inch. Wet snow continued through forenoon of 20th, turning to rain towards evening with a temperature of 34 degrees.

ARCHER:

During the first four days of the week the weather was favorable for field work. It started to rain Friday morning and is still raining. This morning the precipitation totalled 1.05 inches. A light snow fell during the night but has melted.

The work has consisted of seeding barley and oats in the dairy field. Nineteen acres of oats and 46 acres of barley have been seeded. The Dry-Land plots have been plowed and only a few remain to be duck-footed. Manure hauling has continued. Thirty-four acres of land have been manured and considerable is left to be hauled.

The last of the corn silage has been fed but some of the rye silage still remains. The cows do not eat the rye silage as well as they do the corn silage, therefore, dropped off in milk flow when fed the rye silage. It is hoped the present rain will make good early pasture. Where the prairies have not been over-grazed a considerable growth of grass has already taken place.

Maximum temperature 70; minimum 26; precipitation 1.06 inches.

AKRON:

The last of the week witnessed the first consequential rain of the present season. Rain started falling as a slow drizzle Friday morning and has continued intermittently to the present (Saturday afternoon.) This morning at 7:00 o'clock, 1.40 inches had fallen, all in such manner that there has been absolutely no run-off.

AKRON, continued:

Due to the open favorable weather from March 20 to the present time, field work is well in hand. Steps will be taken to prepare the corn and other row-crop land following this rain. Spring sown grains are emerging this week.

Much time was spent the fore part of the present week preparing for the First Annual Livestock Feeders' Day sponsored by the Colorado Agricultural College. About 200 actively interested people gathered at the station Friday forenoon midst the light drizzling rain to view the stock under feed and to hear the interpretation of the results. About 300 people gathered at the Court House in Akron in the afternoon to hear a program along live stock lines featured by successful livestock men from the surrounding territory.

In a comparison of corn and barley with hog-millet, locally called "Hershey", for fattening hog and lambs the hog millet proved to be actually worth more than corn for fattening hogs and only slightly less valuable for fattening lambs. Lambs were fattened actually cheaper, purchasing necessary protein as cotton seed meal or a mixture of cotton seed meal and alfalfa meal, on our local feeds than on the cheapest beet by-product feed combinations fed this past year in experiments at Fort Collins.

Mr. LeClerg and Mr. Lungren, the latter in Charge of Barberry Eradication for this State and Wyoming, were visitors Thursday in the interest of Pathological studies with winter wheat. Mr. Deming and Mr. Starkey, from the College at Fort Collins, were also here Thursday taking spring stand data on the winter wheat nursery and seeding the spring grains nursery. The rain Friday morning interfered with the completion of the seeding of the spring grains nursery.

Maximum temperature 77; minimum 31; precipitation 1.40 inches.

COLBY:

With practically no precipitation since last fall, the rainy spell favoring us at present is very much appreciated. Wheat went through the winter in fair condition with very little loss.

COLBY, continued:

The loose, dry condition of the surface soil and the absence of vegetative growth above the ground was very favorable to soil blowing. Several days of high wind during the spring mutilated the wheat on some of the D. L. A. fallow plots rather severely, and destroyed entirely whole fields of summer fallow wheat in the vicinity. At the station all the wheat ground had been strip listed, otherwise much more serious damage would have resulted. None of the wheat on cropped land showed any serious effects of blowing, and with the present favorable moisture conditions there will probably be no permanent injury on the fallow plots.

Good stands of spring grains were secured on most of the plots. The fall plowed ones, however, did not show the abundance of moisture that the others did so that the seedbed apparently dried out before all the seed germinated, resulting in rather spotted stands on all these plots.

There were some rather high temperatures during the latter part of March and during April, which caused fruit buds to start rather early. Apricots have been in bloom for some time and pears are in blossom now.

Visitors during the past ten days included Mr. H. M. Bainer, of the Southwest Wheat Improvement Association, Mr. E. C. Paxton, Professors J. H. Parker, H. H. Laude and Pierson of Manhattan, Professor E. C. Chilcott, Mr. E. F. Chilcott and Mr. A. L. Hallsted.

Precipitation for the year to date, 3.03 inches, normal for the first four months 3.93 inches. Minimum since January 1, -12, maximum 89. Precipitation since April 1, 1.88 inches.

TUCUMCARI:

Growth of foliage has been very rapid the past week and ranges are changing in appearance daily. Fruit trees have bloomed heavily, with the exception of peaches, and if frost does not occur prospects are favorable for a good yield. Recently planted grapes and trees are growing nicely.

TUCUMCARI, continued:

Listing of increase land is practically completed. While the week has had low average wind movement, short periods of high velocity show soil movement danger is not past, so little work has been done on plots toward preparation for planting.

Professor E. C. Chilcott and Mr. E. F. Chilcott visited the station Tuesday en route to Amarillo. Mr. J. Stokely Ligon and Mr. Birmingham, of the State Game Department, spent portions of two days at the station this week, observing scaled quail.

Maximum temperature 84; minimum 37; precipitation 0.0
Wind velocity 5.1 miles per hour; evaporation 1.856 inches.

DALHART:

The past week has been quite favorable for this time of year. There have been several threatening storms out of which .10 inch of precipitation was recorded. There was considerable wind at times, lasting from a few hours to about three-quarters of a day, none of which did any damage on the station. Soil blowing has been in evidence in the country surrounding the station during these spells.

Professor E. C. Chilcott, in company with Mr. E. F. Chilcott and Mr. B. F. Barnes, visited this station this week. They arrived via auto from Colby, Kansas, Monday evening. Professor E. C. Chilcott and Mr. E. F. Chilcott left during the forenoon Tuesday, the 16th, for Tucumcari, New Mexico, Mr. Barnes remained at Dalhart and returned to Colby via train.

The work at the station this week consisted of hauling dirt for blownout roadways, plowing, building sidewalks, cutting dead wood out of trees and a clean-up among the tree plantings. This clean-up consisted of the removal of stalks which were scattered for protection against soil blowing last fall and in cultivating the trees.

We have had a number of station visitors this week consisting chiefly of farmers, many of whom are new settlers here and some of whom are contemplating a move to this country from other sections.

Maximum temperature 82; minimum 31; precipitation .10 inch.

BIG SPRING:

Weather conditions during the past week have been very favorable for field work. Two hard blows occurred, one on April 14 and the other on the 18th, but they were of such short duration that no damage was done. These blows smoothed the fields off to such an extent that considerable harrowing and discing has been necessary since in order to prevent soil movement with any future winds that may occur. Considerable hail and rain have been reported from various parts of the county during the week, but only .05 inch of rain and no hail have been recorded at the station.

The wheat plots on fallow and disked cowpea land are still green and making some growth, but the rest of the MC wheat plots are burning badly.

Sweet clover plantings, which were started on December 15, and have been continued every 15 days up to and including April 1, are looking good for the most part. All plantings, that have had time, are up to fairly good stands; the February 1 and 15 plantings of both scarified and unhulled seed seem to have emerged to better stands than any of the plantings before or since these dates.

The first date of seeding of sorghums and cotton was made April 15. Other work has consisted of disking fall plowed plots and the cooperative block.

Maximum temperature 91; minimum 45; precipitation .05 inch.

LAWTON:

Small grains planted in the fall of 1928 were handicapped by drought until October 28. From October 28 to November 18 the precipitation amounted to 4.46 inches. Germination and emergence of all plots of wheat and barley planted September 15 to November 1 was recorded November 11 and 12. Good stands were obtained but vegetative growth and development during the spring was very sharply curtailed. Although winter temperatures were about normal, cold weather continued steadily through February, resulting in a late spring.

LAWTON, continued:

The mean temperature for February was the lowest on record for that month.

Wheat fields presented almost a bare appearance until the first of March, at which time a little renewed growth was noticeable. Oats seeded January 28 did not emerge to a stand until March 14.

March temperatures were normal, but growth of vegetation continued slowly until March 27 when 2.25 inches of rain fell slowly, resulting in but little runoff. Response in plant growth, so long delayed, was very rapid. Rainfall throughout the spring, to date, is slightly below normal and more moisture is needed in many localities in the county. Weather during the last two weeks has been threatening and rains were only local.

Wind velocity was above normal in February and the loose, dry surface soil on land that was not plowed, or on fall plowed land that was worked moved easily and quickly. Spring toothing on such areas checked soil blowing effectively.

Spring planting and general farm operations on the station have gone forward in a normal manner. Field plots are, at the present time, well tilled and in good clean, condition. Additional surface moisture will be required before the main plantings of row crops are made.

Corn planted April 6 emerged to fairly good stands on the 16th. The M. C. plots of broomcorn and sorgo were planted April 16. Sweet clover on the rotation plots, planted April 2, will likely fail to make a stand. Alfalfa, planted on the same date, emerged quickly. In the sweet clover seeding project, good stands were secured with scarified seed, but most of the hulled seed has, so far, failed to germinate. The April 15 plantings of cotton, grain and forage sorghums were made under fairly favorable conditions.

Small grains have been free from winter insect damage. Adult chinchbugs have been fairly prevalent during April and indications favor an early infestation of the first spring brood.

LAWTON, continued:

Cold weather throughout February held the development of fruit buds and bloom on ornamentals and shade trees until a late date. As a result of escaping the frost, fruit trees of all kinds are loaded to fullest capacity. Early flowering shrubs have never made a finer display. Chinese Elm produced the heaviest crop of seed in the history of the growth of the trees.

The rainfall for January, February, and March is only 0.42 inch below normal, but the protracted drought in the fall of 1928, and a rather scant supply of winter moisture leaves crop growth in a rather precarious condition at present. The last killing frost to date was recorded March 17.

WOODWARD:

For a considerable part of the past week cloudy and rather cool weather prevailed, and yesterday afternoon, the 19th, a dashing rain accompanied with a rather severe hail storm occurred which resulted in .65 inch precipitation, but with little damage being done. It is threatening rain again today.

Wheat has been making a rapid growth and should continue to do so for another week or more, on the recent rainfall received. Trees, shrubs, and flowers are making a very fine show this spring, and prospects for a good fruit crop are still bright.

Date of planting and rotation corn was planted this week, and ground for the cotton experiment was plowed. The orchards, windbreaks, and vineyards were disked, and apricots and early blooming apples were sprayed with arsenate of lead. Picking of Chinese elm seed was finished.

Superintendent E. F. Chilcott returned Wednesday, the 17th, from a trip to the Western Dry-Land stations. He was accompanied by Professor E. C. Chilcott, Head of the Office of Dry-Land Agriculture. Professor Chilcott departed Friday evening for Manhattan, Kansas.

Maximum temperature 85; minimum 44; precipitation .72 inch. Wind velocity 8.2 miles per hour; evaporation 1.409 inches.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

APR 27 1929

REPORT FOR WEEK ENDING APRIL 27, 1929.

PENDLETON:

The past week has been warm. The maximum temperature being 80 and the minimum 35. The wheat is making a fine growth. The station well was completed on April 24. The well is 283 feet deep. The water stands within 45 feet of the top of the well. A test was run pumping twenty-five gallons per minute without lowering the water level any.

HAVRE:

The past week has been cool for this season of the year. Minimum temperatures have been near freezing or below every night, with an absolute minimum of 24. There was only one day on which the maximum temperature was high enough for vegetative growth. Native grass is slowly starting growth and is just tall enough now so that cattle can graze a little. Brome and crested wheatgrass have made very good growth and would make fair pasture at this time. Native trees and shrubs have practically held their own during the week.

All of the rotation plots for small grains were given the second cultivation during the week and all plots were staked out. Varieties of spring wheat were seeded and the rotation spring wheat plots are in the process of being seeded.

Winter wheat continued to deteriorate during the week and, aside from stubble, it is doubtful if there will be any winter wheat stands sufficiently thick to make a crop. The surface soil is rather badly baked in the winter wheat and weeds are making a rather strong start.

Seeding in this section of the State is in full progress, and with another week of good weather a large percentage of this will be in the ground.

There was no precipitation during the week.

Maximum temperature 68; minimum 24.

JUDITH BASIN:

The weather during the past week continued cool and backward for this season of the year. The minimum temperature dropped below freezing most of the nights. One shower maintained fairly moist soil conditions, but the April precipitation has been very low.

Field work is under way in all parts of the Basin. Seeding of wheat on well prepared fallow has been completed in some areas. Tillage operations are general with the Great Plains one-way plows and duckfoot cultivators being used quite extensively. The cool weather has held native grass back and livestock men are looking forward to warmer weather.

At the station, wheat, oats and barley have been seeded on the better tillage methods and varietal experiments. Delayed seeding will be practised on continuous cropping.

Native grass pasture has hardly started growth. Crested wheat grass in the cultivated blocks is making early growth. Alfalfa has also started but sweet clover is backward.

The agricultural class from the local high school visited the station during the week.

Maximum temperature 60; minimum 18; precipitation .13 inch.

HUNTLEY:

Showers early in the week forced teams out of the field for a day or two. Drying winds during the last three days put the land in shape to be worked again, and plowing for corn and other late crops was completed.

Due to cloudy and much cooler weather, crops did not make as much progress this week as they did last. Alfalfa and grasses seem to need moisture as well as higher temperatures. Where these crops have been used for pasture the ground is beginning to crack between the rows.

Spring grains sown two weeks ago are commencing to sprout and a few warm days should see most of these plantings coming up.

Maximum temperature 65; minimum 21; precipitation .23 inch.

SHERIDAN:

Oats were seeded in the rotations Monday, the 22nd. Land for the varieties of spring grain and the rates of seeding was prepared for seeding also, and plowing for annual pasture crops was continued with the tractor. Heavy snow the evening of the 23rd, preceded by about a half inch of rain during the day, prevented further field work during the week, except for plowing some sod which was started today. A total of 2.00 inches of moisture fell at the station in this storm, while Sheridan reported 2.35 inches.

About two days following the storm were required for repairing the station section of the telephone line to Sheridan. Some fencing was also done.

Maximum temperature 62; minimum 21; precipitation 2.09 inches.

DICKINSON:

Fair weather continued all week, so there was no interruption to field work. Although seeding started a little late, work is now well up to date both on the station and on farms in the area. Seeding of wheat on farms is nearly completed and some oats and barley were seeded during the week.

Visitors included President J. L. Coulter, North Dakota Agricultural College, Mr. R. C. Dynes, Assistant County Agent Leader, and County Agents Eastgate, Garfoot, Harding, Martel, and Russel, and Mr. R. L. Shotwell, Assistant Entomologist in charge of the Billings, Montana, Laboratory of the Bureau of Entomology.

Maximum temperature 65; minimum 27; precipitation .03 inch. April precipitation to date .34 inch.

MANDAN:

Agronomy

The past week has been cold and disagreable for field work. A fairly hard wind blew on two or three days.

MANDAN, continued:

Agronomy, continued.

Field work consisted of plowing seed blocks for corn, planting seed blocks of wheat and oats, sowing 15 acres of oats for feed, cultivating forage crops in rows, and cleaning up old weeds.

The soil remains cold and germination is slow. Wheat and oats planted over a week ago is not up. Alfalfa is just getting a good start.

Maximum temperature 68; minimum 30; precipitation .03 inch.

Cooperative Grazing Experiment

Vegetation is making a fair start and will be in good condition for grazing by the time the cattle are started on the pastures.

Arboriculture

Planting operations have been carried on throughout the week. Sixty-three thousand northwest poplar cuttings and five thousand each of 2-0 Western Yellow and Scotch pine seedlings have been planted in the nursery. Four new specie blocks have been set out with Chinese importations.

Horticulture

Planting in the nursery, orchards, and breeding blocks has been completed. Part of the cuttings have been planted in the seedbeds, while part are being allowed to callus in the greenhouse.

Fruit trees were shipped to cooperative farmers on April 22 and 23. Apples, crabs, plums, sandcherry-plum hybrids, currants, gooseberries, sandcherries, grapes, Juneberries, and Highbush cranberries, were sent out.

Stock in the nursery which was budded last August has been cut back. The buds are starting to grow and a fair stand appears to have been obtained.

Transplanting of tomatoes for the breeding project was finished during the week. Greenhouse work has consisted of potting up cannas and other bedding plants, transplanting of lettuce and cabbage, and divers annual bedding plants.

BELLE FOURCHE:

Cool weather has prevailed throughout the week, and a heavy frost occurred April 25. A rain of .42 inch precipitation was received on April 23 which further delayed field work. The rain, however, was not wholly unwelcome as it assured the germination of grain which had been seeded and was beneficial to winter wheat, winter rye, and hay and pasture crops.

Seeding of spring wheat, oats, barley, field peas, and two plots of bromegrass was completed just before the rain. Sweet clover, alfalfa, and two remaining plots of bromegrass were seeded the latter part of the week.

Mr. D. V. Kopland, of the Ardmore Field Station, visited the station early in the week.

Maximum temperature 67; minimum 26; precipitation .42 inch.

ARDMORE:

The weather was stormy or threatening to storm all through the week until the 27th. A hard freeze on the 26th did little or no damage to crops. Field work was possible in the field on four and one-half days.

Spring plowing for corn was finished on the 26th. All plots in the rotations to be seeded to corn were double disked and harrowed. Some fall plowed plots were covered with the duckfoot cultivator to eradicate volunteer small grain. Flax and sweet clover were seeded in the main rotation and variety test plots on the 27th.

Maximum temperature 65; minimum 25; precipitation .20 inch.

CENTRAL GREAT PLAINS FIELD STATION:

Professor Chilcott arrived April 22, from a trip to the southern stations.

Two cars of dimension material were placed at Ware April 21; unloading was completed except for about two truck loads when the blizzard struck on the 24th. All work suspended that day. On April 25 all hands were breaking roads, utilizing teams and tractor. By 3:00 p.m. the Ford truck was able to get through to Fort. Russell and found fair going into town from that point. The painters and carpenters were able to resume work on April 26. During the past two days the snow has rapidly melted and by Monday conditions should be normal. Electric current came on again April 26, but to date the telephone line is still out of commission.

April 22 Foggy; temperature 34 to 52.
23 Cloudy; showers in afternoon; thunder and lightning with driving rain in evening, turning to snow in the night.
24 Blizzard raging; 26 above at 6 a.m. Electric and telephone lines down. At midday one could scarcely see from one building to the next. Snow ceased and wind abated towards evening.
25 Clear and calm; temperature 26 to 54.
26 Clear and calm; temperature 38 above at 9 p.m.
27 Froze some during the night; clear; snow melting off rapidly.

ARCHER:

The storm which started April 18 and continued until the night of April 24 consisted of three divisions. The first was a rain covering the period of April 18 to 20. The precipitation during this period totalled 1.68 inches. There as a lull during April 21 and 22. On these days traces of precipitation were recorded. On April 23 it started to rain, but during the night turned to snow which was driven by a heavy northwest wind. During the day of April 24 it was impossible to be out only for very short periods, and then the wind blew one's clothes so full of snow he became wet through. The precipitation for this part of the storm totalled 1.27 inches. It is possible that a larger amount would have been recorded had the instruments not been in the open, or if the snow could have been measured. All the men spent one and one-half days shoveling snow in order to open the road in the yard.

Maximum temperature 53; minimum 18; precipitation 2.95 inches.

AKRON:

The total of the rain reported last week was 1.98 inches, all of which penetrated into the soil On Tuesday this region experienced a blizzard of considerable intensity, snow being impelled by a north to northwest wind which averaged 28.4 miles per hour for the 24-hour period. Preceding this snow there was a rainfall which measured a little more than three-quarters of an inch. Several windmill towers and lightly anchored outhouses were blown over throughout this region by the hard wind. Despite the extremely hard wind there was no soil blowing, due to the wet nature of the surface soil and to the light snow. There was some run-off from the rain of this storm, the surface soil being too full to absorb more moisture. Friday afternoon another shower approached from the southwest which netted .10 of an inch, enough to make the surface sticky and to prevent any Saturday field work. Rainfall thus far in April totals 3.13 inches making this the sixth wettest April within 22 years. The soil is well wetted and the agricultural outlook at this period of the year has not been better for many many years past.

It was impossible to do any field work with the teams during the week. The rate and date winter wheat experiment, the variety winter wheat, oats, and barley plots, and the winter wheat plots of the rate and spacing corn project were trimmed. All spring seeded small grains are up and stands in practically all cases are satisfactory.

Shrubbery about the station is beginning to show growth activity, particularly the Spirea Van Houttei, which, it is feared, was damaged by the midweek storm. This particular shrub seems always to come out a little too early for safety at this altitude.

Due to the bad roads it was impossible to ship the fat hogs and lambs this past week. Preparations are made for loading them out for Denver tomorrow.

Maximum temperature 61; minimum 29; precipitation 1.44 inches.

NORTH PLATTE:

Several severe storms have occurred during the week. Precipitation totaling 3.55 inches was measured at the table guage. The greater part of this came in heavy downpours accompanied by hard winds. The run-off was very heavy, and considerable damage was done by washing in the roadways and across the plots.

NORTH PLATTE, continued:

Crops are badly plastered down, and the top soil plastered down so that early cultivation will be necessary.

One division of the Fifteenth Annual High School Agricultural Judging Contest was held at the Station on April 25-26. Fourteen schools were in attendance. Several schools that had previously registered were kept away by the heavy rains and bad roads. Dean W. W. Burr was the chief speaker at the banquet given by the Chamber of Commerce to the boys in the contest.

COLBY:

Some rain has been recorded every day during the past week. The sky has been cloudy most of the time and temperatures have been below normal.

The small grains are making satisfactory growth, but the wet weather has prevented work on the corn and sorghum seedbeds. Pastures are beginning to green up.

Some Chinese Elm seed was picked yesterday. Some of the trees on the station are well set with this seed.

Maximum temperature 77; minimum 32; precipitation .88 inch.

TUCUMCARI:

The past week has been windy, with periods of serious soil movement where no attempt has been made to prevent this. The station listed land has not blown, but a number of fallow and cowpea plots have been field cultivated to check movement.

Completion of listing increase land, cultural work on the MCG plots, and watering newly planted trees have taken the attention of the station force the past week. Farmers are again interested in cotton growing, and it is probable a gin will be built at Logan, a small town twenty miles from Tucumcari. About 3,000 acres has been signed up within a ten-mile radius of Logan and, doubtless, this will be considerably increased by planting time.

TUCUMCARI, continued;

No attempt has been made to fully prepare station plots or increase land for planting, for no precipitation has been received since April 4 and high winds prevail much of the time.

Maximum temperature 83; minimum 31; Evaporation 2.220 inches; Wind velocity 8.4 miles per hour.

BIG SPRING:

Weather conditions during the week have remained dry and windy. The first blow of any duration this year occurred April 24; on this date the wind blew all day, and, as a result, considerable sand furrowing was necessary to prevent the soil from moving.

With the exception of two varieties of cotton, all the April 15 date of planting varieties have emerged to good stands. About the only change that can be noticed in the winter wheat plots is that they have burned a little more.

Station work has consisted mainly of making a ditch to protect the Dry Land plots from washing, and in grubbing out the brush from the pasture fence row.

Mr. E. F. Chilcott visited the station April 21, and 22.

Maximum temperature 85; minimum 44; precipitation 0.

LAWTON:

Temperatures have been moderate to cool the past week, but intervals of very high wind velocity have damaged small grains. A month has passed by without rainfall, and crops show a positive need of moisture. Wherever wheat has made a normal growth the leaves are badly burned. Growth of oats is at a standstill and volunteer crops of oats are heading at a very short height. Winter barley is also heading at a short, uneven height. The April 15 planting of grain and forage sorghums is emerging very unevenly, and only poor stands are yet in sight. The same is more or less true of cotton. Sorgo and broom corn planted on the M. C. rotation plots resulted in pretty good stands except on listed ground.

Maximum temperature 86; minimum 41.

WOODWARD:

The work of the week has been almost entirely planting of cuttings of grapes, elms, etc., and in spraying all the fruit trees on the station.

The wind was very high on the 23rd and 24th and a haze of dust hung over the whole country.

Winter wheat in country adjacent to Woodward has not made the excessive growth that it has over the Plains generally.

There are still good prospects for heavy crops of all kinds of fruit.

Maximum temperature 78; minimum 37; precipitation 0.05 inch.
Wind velocity 10.2 miles per hour; evaporation 1.649 inches.